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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,992	04/21/2004	Jerome Bombal	TI-35112	5501
23494 7590 08/19/2009 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265				
EXAMINER				
DARE, RYAN A				
ART UNIT		PAPER NUMBER		
2186				
NOTIFICATION DATE		DELIVERY MODE		
08/19/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com

**Office Action Summary****Application No.**

10/828,992

**Applicant(s)**

BOMBAL, JEROME

**Examiner**

RYAN DARE

**Art Unit**

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freidin et al., US Patent 5,955,988, in view of Hildebrant, US PGPub 2005,0193294.
3. With respect to claim 25, Freidin teaches a first-in first-out memory comprising:
  - A. memory circuitry having word storage slots, each word storage slot containing a same certain number of bits, and having a read pointer address input and a write pointer address input, in col. 6, lines 11-51, where memory unit 340 is the memory;
  - B. data read/write circuitry having a parallel port selectively coupled with each word storage slot, a system data path, a control input, and a scan data input/output, in col. 6, lines 11-3;
  - C. control circuitry having a read pointer address output connected with the read pointer address input and a write pointer address output connected with the write pointer address input, the control circuitry having a control output connected with the control input of the data read/write circuitry, in col. 6, lines 11-51; Freidin fails to teach a scan storage output. Hildebrant teaches a scan storage output and:
  - D. scan storage circuitry separate from the memory circuitry, the scan storage circuitry having a serial input, a serial output, a scan data output/input connected with the scan data input/output of the data read/write circuitry, and a control input connected with the scan control output, in par. 5.

4. It would have been obvious to one of ordinary skill in the art, having the teachings of Freidin and Hildebrant before him at the time the invention was made, to modify the memory system of Freidin with the memory system of Hildebrant in order to test the circuit, which is critical to confirm proper operation.
5. With respect to claim 26, Freidin teaches the memory of claim 25 in which the scan storage circuit is serial shift circuitry having the certain number of bits, so that the serial shift circuitry has the same number of bits as a word storage slot, in col. 3, lines 40-48.
6. With respect to claim 27, Freidin teaches the memory of claim 25 in which the scan storage circuit is serial shift circuitry having the certain number of bits, so that the serial shift circuitry has the same number of bits as a word storage slot, and the scan input/output is a parallel connection of the certain number of bits from and to the data read/write circuitry, in col. 6, lines 11-51..
7. With respect to claim 28, Freidin teaches the memory of claim 25 in which the memory circuitry is free of scan circuitry, in col. 6, lines 11-51.
8. Claims 29-30 are rejected using similar reasoning as claims 25-26.
9. With respect to claim 31, Freidin teaches the process of claim 29 including incrementing the read pointer address and the write pointer address and repeating steps B., C, and D., in col. 6, lines 11-51.

***Response to Arguments***

10. Applicant's arguments with respect to claims 26-31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN DARE whose telephone number is (571)272-4069. The examiner can normally be reached on Mon-Fri 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matt Kim/  
Supervisory Patent Examiner, Art  
Unit 2186

/Ryan Dare/  
August 16, 2009